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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MORGAN LEWIS & BOCKIUS LLP
1111 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004

EXAMINER

PHAM, HAI CHI

ART UNIT PAPER NUMBER

2861

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,895

Applicant(s)

ONODERA ET AL.

Examiner

Hai C Pham

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-51, 56 and 57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19, 22, 24, 25 and 27-30 is/are allowed.
- 6) ☒ Claim(s) 15-18, 20, 21, 23, 26, 31-51, 56 and 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 15-18, 20-21, 23, 26, 28, 31-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Each of the base claims 15, 32, 47 and 48 includes the following amended limitation "readable by a disc player immediately after recording" (emphasis added), which is not discussed in the specification.

Claims 16-18, 20-21, 23, 26, 28, 31, 33-46 and 49-51 are dependent from claims 15, 32, 47, 48 above and are therefore rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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4. Claims 15-18, 20-21, 23, 26, 28, 31-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Each of the base claims 15, 32, 47 and 48 includes the following amended limitation “to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a surrounding annular unrecorded area where pits are not formed” (emphasis added), which appears to be inaccurate and confused based on the disclosure. Indeed, the specification at page 22, lines 20-26 indicates that “the character portion of the pit art PA2 are recorded as a multiplicity of pits in the recording layer of the CD-R” within the surrounding annular unrecorded area as shown in Figure 9, and that “pits are not formed in the background portion” and that the reflectance difference between the portion where pits are formed and the background portion renders the pit art PA2 such as “ABCDE” visible. Therefore, the limitation as it is recited above may lead one to confusedly interpret the pits being formed outside of the surrounding annular unrecorded area where no pits are formed such that the reflectance difference between the pit-forming portion and the surrounding annular unrecorded area can be recognized. A suggested amendment to the above claims would be:

--a writing component for forming a visible image portion pattern in a surrounding annular unrecorded area by irradiation of light on a recording layer formed in the optical recording medium to generate a change in

optical characteristic of the recording layer where pits are formed with the light as compared to a ~~surrounding annular unrecorded area~~ pit-less portion where pits are not formed--.

The rejection of the above claims will be based on the present disclosure of the invention.

- Each of the base claims 15, 32, 47 and 48 includes the following amended limitation “readable by a disc player immediately after recording” (emphasis added), which appears to be confused in that it is not understood what the Applicants are intended to claim, e.g., a *special* recordable optical disc is used such that it can be read immediately after recording or the recordable optical disc does not require time for healing or curing due to the exposure to light during the recording process. Moreover, with the method claim 48, it is not understood whether the “immediate reading after recording” is part of the claimed recording method. On the other hand, there is no known recordable optical disc that requires time for healing or curing due to light exposure during the recording process. The rejection of the above claims will be based on the assumption that the added limitation “immediately after recording” is not pertinent to the claimed limitations until the Applicants demonstrate otherwise.

Claims 16-18, 20-21, 23, 26, 28, 31, 33-46 and 49-51 are dependent from claims 15, 32, 47, 48 above and are therefore indefinite.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15-17, 26, 32-33, 48-50 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. 6,088,323) in view of Ito et al. (U.S. 5,875,156).

Kobayashi et al. discloses an optical disk recording method and apparatus, which comprises a driving component (4) for driving the optical recording medium optical disk 50), and a writing component (laser 7) for forming a visible image pattern (Fig. 8) by irradiation of light (laser beam) on a recording layer formed in the optical recording medium to generate a change in optical characteristic of said recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed (the low reflectance area [formed by pits] as compared to the high reflectance area [formed by lands]) (col. 2, lines 13-18 and col. 10, lines 13-32), wherein the optical recording medium is a recordable optical disk (write-once type optical disk) (col. 12, lines 36-43), which is readable by a disc player (CD player 42) (col. 12, lines 48-61).

Although Kobayashi et al. discloses the visible image pattern being recorded in a surrounding annular area (Fig. 8), Kobayashi et al. fails to explicitly teach the surrounding annular area being an unrecorded area.

Ito et al. discloses a playback system for an optical disc having a character/graphic pattern recorded on the same surface as the information data but within a surrounding annular unrecorded area (annular area delimited by the disc diameters $\phi 117$ and $\phi 120$), outside of the recorded information data area (annular area delimited by the disc diameters $\phi 50$ and $\phi 116$) (Figs. 9A, 9B) such that the character/graphic pattern can be recorded without spoiling the information capacity of the optical disc. The character/graphic pattern is visible on the basis of a difference of the reflectances of the pit portions and non-pit portions.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the surrounding annular unrecorded area of the surface of the optical disc for forming the visible image pattern in the device of Kobayashi et al. as taught by Ito et al. The motivation for doing so would have been to allow the formation of the visible image pattern without spoiling the information capacity of the optical disc as suggested by Ito et al. at col. 19, lines 18-28.

With regard to claim 57, the examiner notes that the intended use statement in the preamble implies no apparent structure of the recording system, namely "for use with an optical recording medium ... provided with address information for recording an image pattern in said image recording layer". The recording system as claimed does not include and/or require any means for retrieving the address information stored in the recording medium and thus the recitation of the provision of the address information for recording image *in relation to rather than part* of the recording system does not limit the

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structure of the recording system. Therefore, the statement in the preamble is not given patentable weight (see MPEP 2111.02).

Kobayashi et al. further discloses a data generating component (51), the writing component modulating the light based on image pattern data generated by said data generating component (via light modulator 52) and irradiating the modulating light on said recording layer (col. 10, lines 28-32), the writing component being commonly used for recording data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area of the optical recording medium (Fig. 6), and the recording medium being a recordable optical disc, which is readable by a disc player (compact disk player 42).

7. Claims 15-18, 21, 26, 31-37, 42-45, 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. in view of Nomula et al. (U.S. 4,967,286).

Kobayashi et al. discloses all the basic limitations of the claimed invention (please refer to the above rejection) including the visible image pattern being recorded in a surrounding annular area (Fig. 8), except for the surrounding annular area being an unrecorded area, the editing component, a display component, and the visible image pattern being recorded in an unrecorded area of the optical recording medium.

Nomula et al. discloses a method and apparatus for forming a digital image on a master optical recording medium, the apparatus comprising a driving component (mastering turntable 32) for driving the optical recording medium, and a writing component (laser 38) for forming a visible image pattern (18) by irradiation of light (laser

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beam) on a recording layer formed in the optical recording medium to generate a change in optical characteristic of said recording layer between a portion where pits are formed with the light and a pit-less portion where pits are not formed (the visible image 18 being formed by generating pits 26 on a background of pit-less reflecting surface 24, the pits creating visual effect, which contrasts markedly against the specular reflecting surface, e.g. difference in reflectance) (col. 3, lines 1-28). Nomula et al. further teaches the visible image pattern being recorded in a surrounding annular unrecorded area (image surface portion 16), which extends between a starting radius R_s and an ending radius R_E (col. 3, lines 2-14). With regard to claim 47, Nomula et al. teaches a program for executing the image pattern writing for forming a visible image pattern on a recording layer of the medium through irradiation of the laser beam. Nomula et al. further teaches an editing component for editing the image pattern data (col. 5, lines 14-16 and 38-40) (Fig. 7), the editing component changing a size of the image pattern data (col. 6, lines 59-61), the writing component being commonly used for recording data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area of the optical recording medium (col. 3, lines 25-28), a display component (video monitor 46), the visible image pattern being constituted by any characters, signs (18, Fig. 1).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Kobayashi et al. with the aforementioned teachings of Nomula et al. The motivation for doing so would have been

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to allow the image pattern recorded on the optical recording medium to correlate with the recorded data.

8. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Cutler et al. (U.S. 5,967,676).

Ito et al. discloses an optical disc having a data recording layer provided within an annular area delimited by the disc diameters $\phi 50$ and $\phi 116$, and an image recording layer for forming a character/graphic pattern recorded on the same surface as the information data but within a surrounding annular unrecorded area (annular area delimited by the disc diameters $\phi 117$ and $\phi 120$), outside of the recorded information data area (Figs. 9A, 9B) such that the character/graphic pattern can be recorded without spoiling the information capacity of the optical disc, and wherein the character/graphic pattern is visible on the basis of a difference of the reflectances of the pit portions and non-pit portions.

Ito et al. fails to teach the optical disc being provided with address information for recording an image pattern in said image recording layer.

Cutler et al. discloses an optical disc provided with a data recording layer and an image recording layer having text and/or graphics formed based on the embedded data indicating the location of the specific area of the disc to be printed.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include pre-printed data indication the location of the image to be recorded on the optical disc as taught by Cutler et al. in the device of Ito et

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al. The motivation for doing so would have been to allow the label or image to be precisely printed in the designated area of the optical disc.

Allowable Subject Matter

9. Claims 19, 22, 24-25 and 27-30 are allowed.

10. Claims are 20, 23, 28, 38-41 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 20, 23, 28, 38-41 and 46 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments filed 04/14/04 have been fully considered but they are not persuasive.

Applicants argue that "Nomula does not cure the deficiencies of Kobayashi" specially with regard to the added limitation "surrounding annular unrecorded area", the examiner respectfully disagrees. In fact, Nomula does teach the visible image pattern being recorded in a surrounding annular unrecorded area (shown as image surface portion 16), which extends between a starting radius R_s and an ending radius R_e and which is separated from the annular recorded area (12) where audio information is recorded (col. 3, lines 2-14).

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With regard to the added limitation "immediately after recording", please refer to paragraphs 1 through 4 for its rejection.

Conclusion

13. Applicants' amendment, which changed the scope of each of the base claims, necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D Meier can be reached on (571) 272-2149. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER

July 7, 2004